One Thing that Should be Done: Production Systems

Teaching

- Provide continuing education/training for Extension agents
- Develop an introductory food systems class meeting core curriculum campus-wide
- This group collaborate in preparation for upcoming Universities Fighting World Hunger **(*immediate action item*)**
- Develop 3 national learning outcomes
- Collaborate with Ag in the Classroom to modernize/update learning outcomes

World Café comments:

- Education on potential climate change impacts on food systems (we need future leaders knowledgeable on this topic)
- In service opportunities for K-12 teachers, i.e., where does your food come from?

Research

- Production Systems means the entire system from growing through transport, marketing, consuming, etc., not just producing a crop
- Research on storage & transport to maintain nutrition & flavor at low cost
- Continue research on expanding urban production (e.g., roof tops)
- Research how amateur? food products in urban setting can be expanded (e.g., backyard animal production, ???? management, healthfulness, food safety)
- Develop information system to help producers take advantage of real-time opportunities in the market
- Value chain assessment using trans-disciplinary approach
- Research how investments in R & D affect food production over time
- Research climate change impacts on food production
- Are regulatory outcomes what we expected? (intended consequences met)
- Research how to reduce food waste to the lowest in the world
- Research alternative strategies and judicious use of production enhancing technology (e.g., antibiotics)
- Development of new technologies for production enhancement
- Research use of drone technology for production management
- Research on food source tracking (food safety) through the entire system (e.g., for reducing risks of food-borne illness)
- Research how food labeling can support nutrition & health or if we should do so

Extension

- Work with community partners on local/regional food systems, food availability
- Focus on how consumers are diving the food system
- Help producers understand consumer demands and consumer-driven production models
- Teaching about production with and without inputs (sustainable)
- Expand FCS programs on food prep, handling, etc.
- County food alliances
- Convene science community with user groups to identify and advance technology

Breakout #2 — **RESEARCH** Hawaii ~~Food~~ Production Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* How do we value ~~consumer~~ consumer-driven production systems?	1. Have organic & sustainable agric. program. Much research and extension in support of agric. production.	1. How to ~~[illegible]~~ direct/influence consumer choice? 3. Need research on actual value of organic and natural farming methods.
Critical Issue *b:* Ensuring a safe, sufficient & secure food supply	1. Food safety certification coaching 2. Development of pathogen detection methods 3. Much research	1. Need to educate public on what can be produced locally and what should not be. 4. - Research on urban food production (less land dependent).
Critical Issue *c:* Awareness, development and adoption of new technologies	1. Much research on new technologies 2. Hiring Public Issues Education specialist to improve communication on value of new technology.	1. Comparative studies to demonstrate value and safety of new farming technologies. 4. Climate change mitigation (drought tolerant varieties, etc.)

Breakout #2 — **RESEARCH** CA ______________________ — ~~Food~~ Production Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* Valuing all _ Consumer driven produ systems org conventional - local -source verification urban	1. 2. (1) research on all aspects 3. of the production system 4. from field to grower to 5. packers to consumer	1. 2. (1) Continue research/education on 3. nutritiousness & safety of foods grown 4. under different methods (organic, Conventional, backyard etc) climate chg 5. (1a) no-till, reduction in food waste
Critical Issue *b:* Ensuring safe sufficient & secure food supply food security food safety	1. 2. (2) Center Produce Safety CPS 3. W. Institute Food Safety WIFS 4. are examples of food 5. safety centers (research and education)	1. (2) research on food source verification/ 2. tracking - what does it mean 3. (3) envir/econ consequences of org 4. & conventional production methods 5. (4) are regulatory outcomes what was expected
Critical Issue *c:* awareness, devel & adoption of new technologies Whole value chain	1. 2. (3) research on new technologies 3. e.g. a) irrigation (precision) 4. b) no-till agriculture 5. c) alternative pesticide application strategies d) drones to monitor water status in fields	1. 2. (5) efforts to improve sensor technologies - water use, plant stress, 3. growth, yield, pollution etc 4. (6) tracing produ method affects on 5. water quality (7) backyard animal health, welfare food safety & disease transmission human health

Breakout #2 — **RESEARCH** ______________________ — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* How do we deal with consumer-driven production systems?	1. Assessing consumer preferences. 2. 3. 4. 5.	1. ~~to~~ educate students about 2. the value of all sectors of Ag. 3. - write op eds about the 4. importance of all production systems 5. - understand international drivers
Critical Issue *b:* Ensuring a safe, secure, and sufficient food supply	1. - food production 2. - flower production 3. - food safety research 4. - marketing research 5. - food storage/transportation	1. - public/private partnerships 2. need to be encouraged & 3. enhanced. 4. - work with developing countries 5. * - reduce food waste to lowest in world.
Critical Issue *c:* Awareness, development, & adoption of new technologies, applications, & methodologies	1. 2. - developing new methods for detecting food 3. 4. pathogens. 5. - working with Governors office on Innovation	1. * facilitate connections between 2. innovators and investors. 3. 4. 5.

Breakout #2 — **RESEARCH** NM _______________ — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* CONSUMER DRIVEN PRODUCTION SYSTEM	1. 2. 3. 4. 5.	1. HOW TO EXPAND URBAN PRODUCTION ROOF TOPS, VACANT LOTS ETC. 2. LOCAL FOODS MAY PROMOTE HUMAN HEALTH 3. RESEARCH THE ECONOMICS OF ORGANIC PRODUCTION IN DIFFERENT SOCIO ECONOMIC SETTING. 4. 5.
Critical Issue *b:* SAFE & EFFICIENT FOOD SUPPLY	1. FERN LAB (EPA SUPPORTED) THAT DEVELOPS FAST/EFFICIENT ANALYSIS OF FOOD BORNE DISEASES - 2. 3. 4. 5.	1. - SHOULD ESTABLISH THE SAFETY OF FOOD TRANSPORTATION SYSTEMS. 2. ~~SHOULD BE ABLE TO~~ 3. - PROVIDE INDEPENDENT ANALYSIS OF EPA GUIDELINES FOR ALLOWABLE LEVELS OF MICROBIALS IN FOOD SYSTEMS. 4. 5.
Critical Issue *c:* ADOPTION OF NEW TECHNOLOGIES	1. REMOTE SENSING 2. 3. 4. 5.	1. RESEARCH DROUGHT & SALINE RESISTANT CROPPING OPTIONS. 2. EXPAND AND SUPPORT MODERN BREEDING TECHNIQUES TO IMPROVE CROP QUALITY AND QUANTITY. 3. DEVELOP MORE CHEAP AND EFFICIENT ANALYSIS TOOLS FOR FOOD MICROBIALS. 4. 5.

Breakout #2 — **RESEARCH** Wyoming — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* Consumer-driven Production systems	1. Transition to organic, low-input 2. (no till + natural programs), and conventional cropping and 3. livestock systems. 4. 5.	1. Value-chain assessment 2. using a trans-disciplinary 3. team approach. - from soil to sell for 4. example. 5.
Critical Issue *b:* Food security & safety	1. Livestock research on ~~feed~~ efficiency. 2. Weed science research 3. on competition. 4. Research on food-borne illness 5. Economic & risk of changing production systems.	1. INVESTMENT IN AG 2. R&D & IMPACT ON FOOD 3. PRODUCTION 4. CLIMATE CHANGE IMPACTS ON FOOD PROD. 5. DROUGHT Preharvest preventions to improve food safety.
Critical Issue *c:* Technology	1. New chemistries ~~and~~ for 2. weed control + pathogen control 3. Economics/risk assessment 4. of using/banning techonologies e.g. round-up ready crops. 5.	1. Research on current and 2. development of new technologies 3. to ~~use~~ increase efficiency of ~~food~~ production 4. 5.

Breakout #2 — **RESEARCH** Alaska — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* Consumer driven production systems	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.
Critical Issue *b:* Ensuring safe, sufficient, secure food supply	1. Research to enhance local production to reduce reliance on imports 2. 3. 4. 5.	1. 1 Research on ~~food~~ storage, preservation, transport ~~shipping~~ of food to maintain or enhance nutrition + flavor ~~at low cost~~ while maintaining low cost 2. 2 Potential impacts of climate change on food production 3. ~~Research~~ maybe need a ~~way to~~ 3 set of criteria to determine what is "safe" food. 4. 4 Research on urban agriculture 5.
Critical Issue *c:* Awareness etc	1. Seems more on Extension ~~than~~ than research issue 2. 3. 4. 5.	1. 2. 3. 4. 5.

Breakout #2 — **RESEARCH** CSU — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* How to deal with consumer driven production systems	1. 2. 3. 4. 5.	1. 2. 3. 4. 5. Develop information systems that help our producers make real-time decisions to take advantage of market opportunities
Critical Issue *b:* Ensuring safe, sufficient, + secure food supply	1. Meat Quality + Safety Research Center 2. 3. 4. 5.	1. 2. 3. 4. 5. Development of whole-system (production chain) monitoring + decision systems to lower risks of food-borne illness.
Critical Issue *c:* Awareness, Development + Adoption of new technologies, applications, + methodologies	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.

Utah

Breakout #2 — **RESEARCH** ______________________ — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:*	1. 2. 3. 4. 5.	1. Research on systems approach to food production (entire system) in responding to consumers desires. 2. 3. 4. More research on "Ed" of food as it moves through the system (beef? Europe and Canada are ahead of US) 5. Costs — Benefits Continue to support food production technology research.
Critical Issue *b:*	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.
Critical Issue *c:*	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.

Breakout #2 — **RESEARCH** Nevada — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* Awareness, ~~Development~~ & Adoption of How to deal with consumer driven food systems	1. 2. Studies that compare nutritional content of foods produced under various growing systems. 3. 4. 5.	1. 2. 3. 4. 5. Climate Change effects on food production.
Critical Issue *b:* Ensure Safe, sufficient and secure food supply of new ~~technologies,~~ ~~applications~~ & ~~methodologies~~;	1. Animal Health / vaccine development in livestock production 2. 3. 4. 5.	1. 2. Expand local grown food systems research with a focus on 3. 4. 5.
Critical Issue *c:* Awareness, development & adoption new technologies, applications, methodologies	1. * High desert hoop house 2. food production systems to 3. * Drone applications for Agriculture 4. * Evaluating various production systems: aeroponic, hydroponic, acquaponic. 5.	1. 2. Research program on ~~development of~~ the application of drone technology for agricultural production. (monitor range, livestock movement, wildlife habitat, hydrology, etc. 3. 4. 5.

Breakout #2 — **RESEARCH** Montana — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* consumer driven production	1. plant breeding programs 2. Animal nut. programs 3. Country of origin 4. 5.	1. Look at Alternative crop 2. and Animal production 3. practices. 4. Look at Research 5.
Critical Issue *b:* Safe sufficient secure food	1. Animal Health programs 2. use of pesticides/herbicides 3. 4. 5.	1. Alternative management strategies 2. to decrease use of Antibiotics 3. pesticides/herbicides, etc. 4. 5.
Critical Issue *c:* technologies	1. Use of transgenetic crops 2. for production 3. 4. 5.	1. Use technologies and 2. development new technologies 3. 4. 5.

Breakout #3 — **EXTENSION** Wyoming — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* Consumer Driven Production System	1. - Season Extension workshops 2. - Specialty crops research and extension 3. - ~~Greenhouse~~/ High tunnel mgmt 4. Farmers Market Education 5.	1. Education focused on helping producers respond to consumer driven production system Explore more crazy ideas 2. 3. 4. 5.
Critical Issue *b:* Safe Secure food	1. - Serve Safe food Safety Educa 2. - Food Safety at Farmers Markets 3. - Pesticide applicator training 4. 5.	1. Program in Food preservation, preparation and safety. 2. 3. 4. 5.
Critical Issue *c:* Awareness new Technology	1. new irrigation system - applied research 2. Remote Sensing applications 3. 4. 5.	1. 2. 3. 4. 5.

Breakout #3 — **EXTENSION** Montana State — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:*	1. Assiting growers w/ marketing and 2. production of high value crops and livestock products. 3. 4. promotion of adapted high protein alternatives to wheat- 5. fallow - wheat rotation (legumes)	1. 2. Increase efforts in these areas 3. 4. 5.
Critical Issue *b:*	1. 2. Assiting w/ GAP training 3. 4. 5.	1. 2. Expand FCS programs on food prep, handling and 3. preservation 4. 5.
Critical Issue *c:*	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.

Breakout #3 — **EXTENSION** OREGON — Food Systems

Critical Issues	**What *is* being done?**	**What *should* be done?**
Critical Issue *a:* PRODUCTION SYSTEMS	1. 2. 3. 4. 5.	1. IDEA – EXTEND SUCCESSFUL DIMENSIONS OF 2. LOCAL, FARMER-MARKET SYSTEMS 3. 4. 5.
Critical Issue *b:* FOOD SYSTEMS	1. 2. 3. 4. 5.	1. –INSPIRE DEMAND-DRIVEN HEALTHY 2. FOOD MARKETS THROUGH 3. YOUTH PROGRAMS 4. – ESTABLISH LOCAL FOOD POLICY 5. COUNCILS
Critical Issue *c:* TECHNOLOGIES	1. 2. 3. 4. 5.	1. – CONVENE SCIENTIFIC COMMUNITY 2. WITH USER GROUPS TO IDENTIFY AND ADVANCE ISSUES 3. SUCH AS VERTICAL / FARMING 4. MANAGED ENVIRONMENTS : 5. BROADER IMPACTS TECHNOLOGICAL

Breakout #3 — **EXTENSION** University of Nevada — ____________ — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* How do we deal with consumer driven production systems?	1. Health & nutrition education 2. sponsored by SNAP-Ed 3. 4. 5.	1. Evaluation should be conducted 2. to demonstrate efficacy of ed. 3. efforts. 4. Recognize consumer preferences & challenges associated w/ promoting 5. healthy food
Critical Issue *b:* Ensuring a safe, nutritious and secure food supply	1. Local food movement 2. Season extension technologies 3. Alternative crop development 4. 5.	1. Separate philosophy or value- 2. driven ~~facts of~~) beliefs about foods from fact driven ("organic 3. is better for you") 4. 5. Food Safety training
Critical Issue *c:* Awareness, development and adoption of new technologies, applications and methodologies.	1. Season extension technologies 2. (hoop houses) 3. 4. 5.	1. systematic trials to 2. demonstrate true value - 3. 4. 5.

New Mexico

Breakout #3 — **EXTENSION** ____________________ — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* How deal w/ consumer driven production systems	1. 2. Organic Conference - Educational workshops 3. Urban Ag programs 4. 5.	1. Expand Niche Marketing Programs 2. 3. 4. 5.
Critical Issue *b:* Ensure safe, sufficient, & secure food supply	1. Southwest Food Safety & Defense Center 2. Food Safety Blogs 3. GAP Programs (Good Agric. Practices) 4. Bridging Food Deserts 5.	1. Expand County Food Alliance programs - prevent & react food safety issues.. 2. 3. → Food Safety Blog 4. Work NGO's, State Agencies to help resolve food desert issues 5.
Critical Issue *c:* Awareness develop adoption of new technologies	1. Irrigation Technology Workshops 2. 3. 4. 5.	1. 2. 3. 4. 5.

UNIVERSITY OF CALIFORNIA

Breakout #3 — EXTENSION

______________________ — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:*	1. Applied research in production systems across the spectrum: 2. "conventional" organic 3. conservation tillage deficit irrigation 4. etc etc etc 5. Variety development and identification for better nutrition, adaptation to lower	1. Effective communication about the value and role of all production 2. approaches and the need for all to meet the food demands of the world's 3. populations. 4. 5.
Critical Issue *b:*	1. inputs, lower water use, etc. 2. Developing Master Food Preserver program to educate public about food preservation, 3. food safety and food handling. 4. Nutrition education programs, EFNEP SNAP-ED, targeting underserved clientele. 5. Applied research and education on food safety from farm through processing	1. 2. 3. 4. 5.
Critical Issue *c:*	1. to the table. 2. Integrated pest management research and education 3. Urban agriculture program developing that will enhance local access to 4. food, increase public awareness and knowledge about agricultural 5. production.	1. 2. 3. 4. 5.

Univ. Hawaii - Manoa

Breakout #3 — **EXTENSION** ________________ — ~~Food~~ Production Systems ?

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* Consumer-driven, production systems	1. Economic analyses 2. Public issues education faculty 3. 4. 5.	1. → + these and surveys 2. 3. 4. 5.
Critical Issue *b:* safe, sufficient & secure food supply	1. Coaching for established and 2. new farmer programs 3. Info/article on safety for 4. farmers markets 5.	1. low inputs - lead to 2. sustainability in all ways 3. 4. 5.
Critical Issue *c:* New technologies	1. Bulletins 2. 3. 4. 5.	1. Easily digestible info. 2. Teach about hybrid systems 3. 4. 5.

Breakout #3 — **EXTENSION** USU — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:*	1. Master gardener program 2. Farm to fork 3. Small scale Agriculture programming 4. 5.	1. sustainability 2. 3. 4. 5.
Critical Issue *b:*	1. Traditional Extension working with traditional clientele. 2. 3. 4. 5.	1. 2. 3. 4. 5.
Critical Issue *c:*	1. CWEL - Water Conservation 2. Traditional Extension Agri/Hort. 3. 4. 5.	1. 2. 3. 4. 5.

Breakout #3 — **EXTENSION** CSU ______________________ — Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* #1	1. 2. 3. 4. 5. Needs to be Demand Driven (Consumer demand - nutrition and health & Wellness) This is CSU's Approach	1. 2. 3. 4. 5. Supply-driven is the traditional food system perspective - need to focus on consumer demand, attitudes, wellness
Critical Issue *b:* #2	1. 2. 3. 4. 5. Part of Demand Driven Food System approach - again CSU is doing this	1. 2. 3. 4. 5. Follow suggestions of the Nutrition/Health issues group, paradigmatic Shift - engaging people, orgs - on Demand Drive which includes Food Safety
Critical Issue *c:*	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.

Breakout #3 — EXTENSION

Brave food in the title — ~~Production~~ Food Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* Consumer driven production	1. 2. 3. 4. 5.	1. needs to focus on food systems 2. Sustainable production systems 3. 4. 5.
Critical Issue *b:* Safe sufficient + food supply	1. 2. 3. 4. 5.	work w/community partners on 1. access to food -- food deserts 2. food distribution -- food markets 3. 4. 5.
Critical Issue *c:* new technologies	1. 2. 3. 4. 5.	1. Extension can educate producers 2. abt new technologies also 3. through 4H 4. 5.

Breakout #1 — **TEACHING** Penny Diebel - OSU — ~~Food Systems~~ Production

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* Consumer Driven Production Systems	1. 2. Food Systems UG class in Honors College & proposal for Bacc Core 3. 4. 5.	1. 2. 3. Core Curriculum Food Systems class 4. 5.
Critical Issue *b:* Ensuring. Safe, sufficient and secure food supply	1. 2. Sustainability Double-Degree 3. Organic Farm - Student Run 4. 5.	1. Collaborate w/ Ag in the Classroom 2. 3. 4. 5.
Critical Issue *c:* Awareness, development and adoption of new tech.	1. 2. BES internships get hands on experience 3. 4. 5.	1. 2. ? Do we need to go back to an Ag Mech 3. class 4. Internships 5.

Breakout #1 — **TEACHING** WYOMING. — ~~Food~~ Production Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* HOW DO WE DEAL WITH CONSUMER-DRIVEN PRODUCTION SYSTEMS?	1. AGROECOLOGY joint 2. degree program. 3. ? 4. 5. 0	1. 2. 3. ? See group 4. 0 sheets 5.
Critical Issue *b:* ENSURE SAFE, SUFFICIENT FOOD SUPPLY.	1. FOOD SAFETY COURSEWORK FOR CREDIT. 2. ~~#~~ NON-CREDIT FOOD SAFETY TRAINING PROGRAMS 3. COURSEWORK IN FOOD PRODUCTION 4. 5.	1. 2. See group 3. ? sheets 4. 0 5.
Critical Issue *c:* AWERENESS, DEVELOPMENT + ADOPTION OF NEW TECHNOLOGIES + APPLICATIONS + METHODOLOGIES	1. 2. ? DON'T KNOW 3. 0 4. 5.	1. 2. " 3. ? 4. 0 5.

Breakout #1 — **TEACHING** CMK – Hawaii — ~~Food~~ Production Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* Dealing with Consumer-Driven Production Systems	1. 2. 3. 4. 5.	1. Develop national 2. message on challenges 3. of feeding a global population 4. of 8 billion 5.
Critical Issue *b:* Ensuring food supply	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.
Critical Issue *c:* New technologies & methods	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.

Breakout #1 — **TEACHING** Idaho — ~~Food~~ Production Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* Consumer Driven Production Systems	1. 2. ? 3. 4. 5.	1. Educate on role of Consumers 2. in mkt. economy 3. & 4. National Learning Outcomes 5. for food security
Critical Issue *b:* ensuring safe & sufficient food supplies	1. 2. Bi-~~State~~ Food Science 3. Program 4. 5.	1. 2. 3. 4. 5.
Critical Issue *c:* Awareness, dev. & adoption of New technologies apps & methods	1. 2. Traditional plant 3. & animal science programs 4. 5.	1. 2. 3. 4. 5.

Breakout #1 — **TEACHING** Nevada — Food Systems

Critical Issues	**What *is* being done?**	**What *should* be done?**
Critical Issue *a:* Deal w/ consumer driven production systems	1. 2. 3. 4. 5.	1. Education of public 2. at all levels 3. K12, Adult, etc... 4. 5.
Critical Issue *b:* Safe, sufficient secure food supply	1. 2. 3. 4. 5.	1. Recruit Advertising 2. & Marketing professionals 3. to develop & disseminate 4. messages 5.
Critical Issue *c:*	1. 2. 3. 4. 5.	1. Increase international 2. opportunities 3. so students & stakeholders 4. can ~~see~~ obtain 5. global context of the problem.

Breakout #1 — **TEACHING** ______________________ — Food Systems

CSU Fresno CA

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* Consumer Driven Production Systems	1. 2. 3. Have a 4. Field ~~Food~~ to Fork Vine to Wine 5. Curriculum approach	1. 2. Food Systems 3. As a core course 4. in university curriculum 5.
Critical Issue *b:* Ensuring a safe, sufficient and secure food supply	1. Emphasize variety of 2. production systems and associated 3. opportunities and challenges 4. All are built on the need to be Economically sustainable 5.	1. 2. 3. 4. 5.
Critical Issue *c:* Awareness development adoption of new technologies	1. 2. 3. 4. 5.	1. 2. 3. 4. 5.

Nancy Irlbeck CSU College of Agricultural Sciences CAS

Breakout #1 — **TEACHING** ____________________ — ~~Food~~ Systems

Critical Issues	What *is* being done?	What *should* be done?
Critical Issue *a:* How do we deal w consumer driven production system? ~~?~~ (local vs prod food)	1. Organic minor SOCR/HORT 2. several student clubs 3. Urban HorT Course 4. Urban landscaping Course 5. Ag literacy mino 6. classes in HorT; SOCR	1. needs to have a univ-wide course in Food Systems or perhaps Agricultural Systems + food security 2. training for extension agents contuning Ed courses 3. 4. 5.
Critical Issue *b:* ensuring a safe, sufficient & secure food supply.	1. Taught in multiple classes in CAS - much more in HHS. 2. 3. Ag literacy Minor 4. 5.	1. 2. 3. 4. 5.
Critical Issue *c:* awareness, development & adoption of new technologies	1. Addressed in some 2. classes 3. Ag literacy minor 4. 5.	1. 2. 3. 4. 5.

1° and HHS